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10/528,269	03/17/2005	Ian A McCabe	DON01 P-1109	4127

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EXAMINER	
THOMPSON, TIMOTHY J	

ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/528,269	MCCABE ET AL.	
	Examiner	Art Unit	
	Timothy J. Thompson	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,9,13-16,18-23,26,28,33,36 and 40-43* is/are rejected.

7)☒ Claim(s) *4-8,10-12,17,24,25,27,29-32,35,37-39 and 44-50* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 9, 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al.(U.S. Pat. No. 6,441,964) in view of You(U.S. Pat. No. 7,106,392).

Regarding claim 1, 40 Chu et al. discloses; at least one substrate having a forward surface facing towards a viewer of the mirror assembly and a rearward surface facing away from a viewer of the mirror assembly(fig 1, 6, 7), said mirror element having at least one substantially reflective metallic layer(fig 1, 2) sandwiched between a respective pair of substantially transparent non-metallic layers(fig 1, 1, 3), each of said substantially transparent non-metallic layers and said substantially reflective metallic layer having a selected refractive index and a selected physical thickness such that said mirror element is selectively spectrally tuned to substantially transmit at least one preselected spectral band of radiant energy there through while substantially reflecting other radiant energy(col 4, line 25 to col 5, line 25). Chu et al. does not disclose a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy

emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band although Chu et al. does disclose his his coating is used with a flat CRT(abstract). However, You discloses a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(fig 2A, 222) to be used with a flat CRT. It would have been obvious to one skilled in the art at the time of the invention to use a a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(fig 2A, 222) to be used with a flat CRT as shown by You, with the layer of Chu et al., since as shown by You, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band is commonly used in flat CRT devices for emitting an image.

Regarding claim 2, 41 Chu et al. discloses said at least one preselected special band a preselected band of visible light, said radiant energy emitting element being

operable to emit visible radiant energy with a peak intensity within said preselected special band of visible light(col 6, 55-67).

Regarding claim 3, 43 Chu et al. discloses said at least one preselected special band comprises a preselected band of near infrared radiant energy, said radiant energy emitting element being operable to emit near infrared radiant energy with a peak intensity within said preselected special band of near infrared radiant energy(col 6, 55-67).

Regarding claim 9, Chu et al. discloses including an anti-reflective stack of layers at said rearward surface, said anti-reflective stack being spectrally tuned to minimize reflectance of radiant energy at said preselected spectral band(col 6, 55-67).

Regarding claim 42, Chu et al. discloses a display on demand(since it is used with a CRT display).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 18-23, 26, 28, 33, 34, 36, 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Varaprassad et al.(U.S. Pat. No. 2005/0083577).

Regarding claim 1, Varaprassad et al discloses; at least one substrate having a forward surface facing towards a viewer of the mirror assembly and a rearward surface facing away from a viewer of the mirror assembly, said mirror element having at least one substantially reflective metallic layer sandwiched between a respective pair of substantially transparent non-metallic layers, each of said substantially transparent non-metallic layers and said substantially reflective metallic layer having a selected refractive index and a selected physical thickness such that said mirror element is selectively spectrally tuned to substantially transmit at least one preselected spectral band of radiant energy there through while substantially reflecting other radiant energy a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(fig 4, para 102-113, fig 9).

Regarding claim 18, 40 Varaprassad et al discloses; at least one substrate having a forward surface facing towards a viewer of the mirror assembly and a rearward surface facing away from a viewer of the mirror assembly, said mirror element having at least one substantially reflective metallic layer sandwiched between a respective pair of substantially transparent non-metallic layers, each of said substantially transparent non-metallic layers and said substantially reflective metallic layer having a selected refractive index and a selected physical thickness(para 0087) such that said mirror element is selectively spectrally tuned to substantially transmit at least one preselected

spectral band of radiant energy there through while substantially reflecting other radiant energy a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(para 0135), mirror element is viewed from outside said first surface, said mirror element is substantially spectrally untinted when no voltage is applied across said electrochromic medium, said mirror element being at least partially spectrally selective in transmission and exhibiting(fig 4, para 102-113, fig 9, claim 22).

Regarding claim 19, Varaprassad et al discloses said transflective reflector provides at least 20 percent transmissivity of lilt at or near said emitted spectral characteristic(fig 2).

Regarding claim 20, Varaprassad et al discloses transflective reflector provides at least 10 percent transmissivity of light at or near said emitted spectral characteristic(fig 2).

Regarding claim 21, Varaprassad et al discloses said transflective reflector provides at least 60 percent photopic reflectance of other light(fig 1, claim 22).

Regarding claim 22, Varaprassad et al discloses said transflective reflector provides at least 70 percent photopic reflectance of other light(fig 1, claim 22).

Regarding claim 23, Varaprassad et al discloses transflective reflector provides at least 80 percent photopic reflectance of other light(fig 1, claim 22).

Regarding claim 26, Varaprassad et al discloses said second substantially transparent semi-conductive non-metallic layer contacts said third surface of said second substrate(claim 22).

Regarding claim 28, Varaprassad et al discloses said transflective reflector substantially transmits light having said special band in the near infrared region of the spectrral, said light emitting element being operable to emit near infrared light through said transflective reflector(fig 1).

Regarding claim 33 Varaprassad et al discloses; electrochromic mirror assembly for a vehicle, said mirror assembly comprising: an electrochromic mirror element comprising a frist substrate having first and second surfaces and a second substrate having third and fourth surfaces, said first and second substrates being arranged so that said second surface opposes said third surface with an electrochromic medium disposed therebetween; said third surface of said second substrate comprising at least one conductive metallic layer and at least one transparent, at least partially conductive layer, wherein said layers define first and second regions of said transflective reflector, said first region having a first reflectivity and a first transmissivity and said second region having a second refectivity and a second transmissivity, said second transnmissivity being greater than said first transmissivity; and a display element positioned at said fourth surface of said second substrate and operable to transmit light through said second region of said transflective reflector. (fig 10).

Regarding claim 34 Varaprassad et al discloses the first reflectivety is greater than the second reflectivity(fig 10).

Regarding claim 36 Varaprassad et al discloses a generally central region of said electrochomic mirror element and said second region having at least one side region of said electrochromic mirror element(fig 10).

Claims 1, 13-15, 18-23, 26, 28, 33, 34, 36, 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Tonar et al.(U.S. Pat. No. 20060126150).

Regarding claim 1, Tonar et al. discloses; at least one substrate having a forward surface facing towards a viewer of the mirror assembly and a rearward surface facing away from a viewer of the mirror assembly(fig 7E, 114, 112), said mirror element having at least one substantially reflective metallic layer(fig 7E, 178) sandwiched between a respective pair of substantially transparent non-metallic layers(fig 7E, 172, 178), each of said substantially transparent non-metallic layers and said substantially reflective metallic layer having a selected refractive index and a selected physical thickness such that said mirror element is selectively spectrally tuned to substantially transmit at least one preselected spectral band of radiant energy there through while substantially reflecting other radiant energy a radiant energy emitting element at or near said rearward surface of said at least one substrate(para 0135, 0164), said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(fig 7E, 170).

Regarding claim 2, 41 Tonar et al. discloses said at least one preselected special band a preselected band of visible light, said radiant energy emitting element being operable to emit visible radiant energy with a peak intensity within said preselected special band of visible light(para 0169, 170).

Regarding claim 3, 43 Tonar et al. discloses said at least one preselected special band comprises a preselected band of near infrared radiant energy, said radiant energy emitting element being operable to emit near infrared radiant energy with a peak intensity within said preselected special band of near infrared radiant energy(para 0169, 170).

Regarding claim 9, Tonar et al. discloses including an anti-reflective stack of layers at said rearward surface, said anti-reflective stack being spectrally tuned to minimize reflectance of radiant energy at said preselected spectral band(para 0169, 170).

Regarding claim 13, Tonar et al. discloses substantially transparent non-metallic layers comprise substantially transparent semi-conductive non-metallic layers and said substantially reflective metallic layer comprises a substantially reflective conductive metallic layer(fig 7, 190).

Regarding claim 14, Tonar et al. discloses substantially transparent semi-conductive non-metallic layers and said substantially reflective conductive metallic layer conduct electricity to darken or color said electrochromic medium response to a voltage being applied to said layers(fig 7F).

Regarding claim 15, Tonar et al. discloses said at least one substrate comprises a single substrate, said substantially transparent non-metallic layers and said substantially reflective metallic layer being disposed at said rearward surface of said single substrate(fig 7F).

Regarding claim 42, Tonar et al. discloses a display on demand(fig 7E, 170).

Regarding claim 18, 40 Tonar et al. discloses; at least one substrate(fig 7E, 114, 112) having a forward surface facing towards a viewer of the mirror assembly and a rearward surface facing away from a viewer of the mirror assembly, said mirror element having at least one substantially reflective metallic layer sandwiched between a respective pair of substantially transparent non-metallic layers(fig 7E, 178), each of said substantially transparent non-metallic layers and said substantially reflective metallic layer(fig 7E, 172, 178) having a selected refractive index and a selected physical thickness such that said mirror element is selectively spectrally tuned to substantially transmit at least one preselected spectral band of radiant energy there through while substantially reflecting other radiant energy a radiant energy emitting element at or near said rearward surface of said at least one substrate, said radiant energy emitting element being operable to emit radiant energy towards said rearward surface and through said mirror element, said radiant energy emitting element being operable to emit radiant energy with a peak intensity within said at least one preselected special band(para 0135, 0164), mirror element is viewed from outside said first surface, said mirror element is substantially spectrally untinted when no voltage is applied across said

electrochromic medium, said mirror element being at least partially spectrally selective in transmission and exhibiting(fig 7E, 125).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tonar et al.(U.S. Pat. No. 20060126150) as applied to claim 15 above, and further in view of Wong(U.S. Pat. No. 2002/0036828).

Regarding claim 16, Tonar does not disclose using a prism. However, Wong disclose using a prism(fig 2, 230a). It would have been obvious to one skilled in the art at the time of the invention to use a prism as shown by Wong, in the optical device of Tonar, since as shown by Wong, using a prism is commonly done so as to allow for repositioning of the light source which illuminates the device.

Allowable Subject Matter

Claims 4-8, 10-17, 24, 25, 27, 29-32, 35, 37-39, 44-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening

claims. The allowable features being the specifics to the reflective layer, the performance of the reflective layer, a second band of radiant energy.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Thompson whose telephone number is (571) 272-2342. The examiner can normally be reached on 8:30 AM - 6:00 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TIMOTHY THOMPSON
PRIMARY EXAMINER